

Perfect in association with hybrid SPRING panels

This photovoltaic panel offers reliable performance and optimized efficiency, combined with an elegant ultra black appearance particularly suited to photovoltaic and hybrid self-consumption projects.

## FLASH<sup>®</sup> 425 Shingle Black



### OPTIMIZED PERFORMANCE

High performance monocrystalline cells  
Anti-reflective glass ensuring high performance even in diffused light



### AESTHETIC & EASY TO INSTALL

Sleek and attractive design  
Mechanical resistance up to 5400 Pa  
Compatible with all roof installation systems



### QUALITY & SAFETY

CE marking  
Certified following IEC norms\*  
Salt mist corrosion test - IEC standard

\* IEC 61215 & 61730 n°44 780 20 406749 - 219R1M2  
IEC 61701 n°44 780 20 06749 - 242R1M1  
IEC 62716 n°44 780 22 406 749 - 222

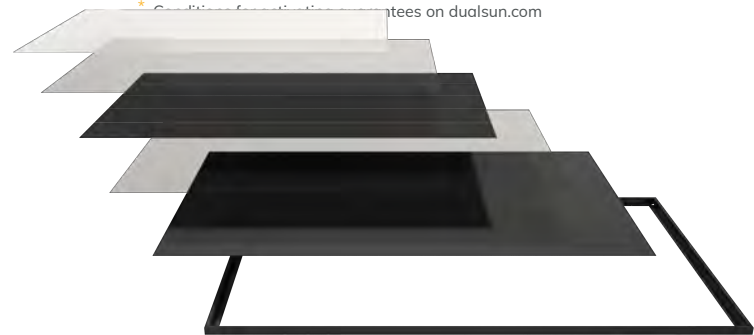
### WARRANTY

French manufacturer

20 year product warranty offered immediately  
+5 years warranty extension upon activation of warranties\*

25 year linear performance warranty on photovoltaic performance

\* Conditions of activation on [dualsun.com](https://dualsun.com)



### RELIABILITY AND COMPETITIVENESS

The DualSun FLASH<sup>®</sup> photovoltaic panel is manufactured according to very strict specifications, and each production batch is systematically audited by a specialized third-party control office.



### Designed in France: R&D center in Marseille

Photovoltaic cells laminated in Asia for an optimized value chain  
Systematic audit of productions by third-party control office

### IDEAL PANEL FOR ROOF TYPES:

RESIDENTIAL

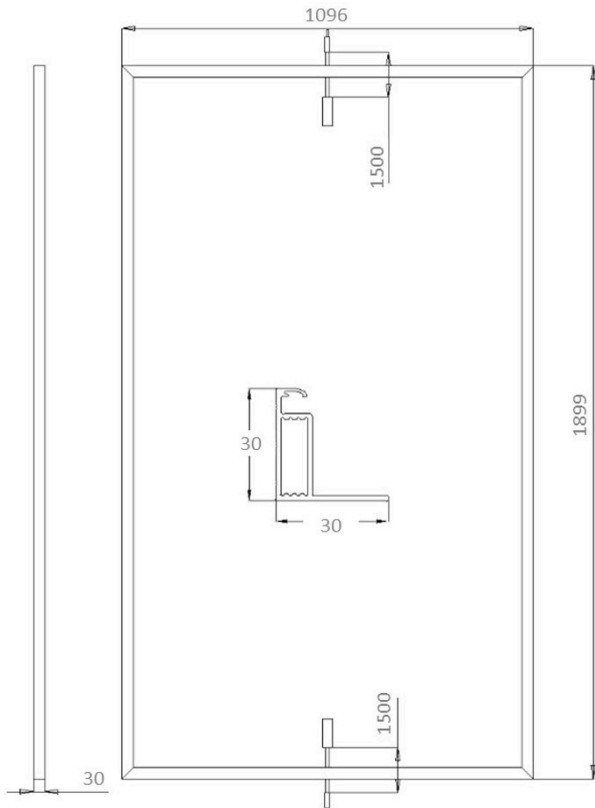


COMMERCIAL





## Dimensions



## Physical characteristics

Dimensions (L x W x T)	1899 mm x 1096 mm x 30 mm	
Weight	21,8 kg	
Number of cells	320	
Cell type	PERC Monocrystalline<	
Connectors	MC4 Original Stäubli	
Cable length	1500 mm	
Junction box	IP67 - 2 diodes	
Maximum load	5400 Pa (Snow)	2400 Pa (Wind)
Frame / Backsheet	Black anodised aluminium / Black	
ECS value	497 kg CO <sub>2</sub> /kWc-e	
Glass thickness	3,2mm	

## Operational characteristics

Temperature	-40°C to +85°C
Maximum system voltage	1500 VDC
Maximum reverse current	25 A
NMOT	45 +/- 2°C
Application class	Class II

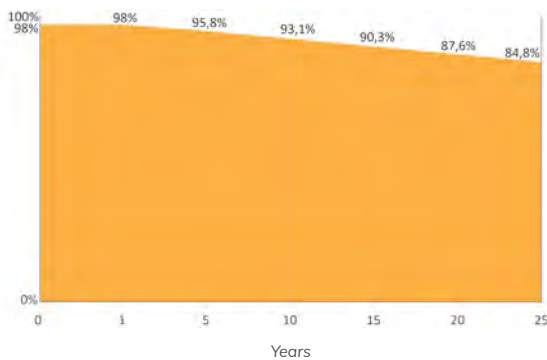
## Photovoltaic characteristics

Nominal power	425 W
Output power tolerance	0/+3%
Module efficiency	20,4 %
Rated voltage ( $V_{mpp}$ )	36,0 V
Rated current ( $I_{mpp}$ )	11,81 A
Open circuit voltage ( $V_{oc}$ )	43,4 V
Short-circuit current ( $I_{sc}$ )	12,56 A

\* STC conditions (AM 1.5 - 1000 W / m<sup>2</sup> - 25 °C)

Measurement tolerance: +/- 3%

## Linear power output warranty



Find the installation instructions and mounting systems in our resource area:



## Temperature coefficients

Voltage temperature coefficient ( $\mu V_{oc}$ )	-0,27 %/K
Current temperature coefficient ( $\mu I_{sc}$ )	0,04 %/K
Power temperature coefficient ( $\mu P_{mpp}$ )	-0,34 %/K